



1652

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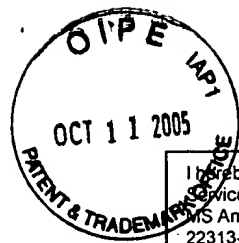
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TRANSMITTAL FORM (to be used for all correspondence after initial filing)		Application Number	09/601,852
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		First Named Inventor	Petrus J. A. MEEUWSEN
		Art Unit	1652
		Examiner Name	I. Chowdhury
Total Number of Pages in This Submission	6	Attorney Docket Number	251502008400

ENCLOSURES (Check all that apply)		
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Firm Name	MORRISON & FOERSTER LLP		
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Printed name	James J. Mullen, III		
Date	October 6, 2005	Reg. No.	44,957

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Dated: October 6, 2005

Signature:

Diane Blevins
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Docket No.: 251502008400
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Petrus J. A. MEEUWSEN et al.

Application No.: 09/601,852

Group Art Unit: 1652

Int'l Filing Date: February 9, 1999

Examiner: I. Chowdhury

For: NOVEL ENDO-XYLOGALACTURONASE

RESPONSE TO RESTRICTION REQUIREMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the restriction requirement set forth in the Office Action mailed September 8, 2005, applicants hereby provisionally elect Group I, encompassing claims 1-6, 20-21, 27 and 34 for continued examination, with traverse.

ELECTION OF INVENTION

Claims 1-44 are pending in this application. The claims of Group I, encompassing claims 1-6, 20-21, 27 and 34 for continued examination, with traverse.

New Restriction

Restriction has been required as between the following allegedly distinct groups of inventions:

Group I (claims 1-6, 20-21, 27, and 34), drawn to a polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Group II (claims 7-19, 20-21 and 34), drawn to a polynucleotide encoding the polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Group III (claims 22-37, 30-33, 39 and 42-44), drawn to method of use polypeptide for treating plant material, which hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Group IV (claims 28-29, 40-41), drawn to a processed plant material.

Group V (claim 35) drawn to a composition comprising gum tragacanth (sGT) treated with a strong acid.

Group VI (claims 36-38), drawn to a method of screening polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Further Restriction of Old Group I is Improper

As a preliminary matter, Applicants disagree with the imposition of a new restriction requirement. The Office has now further sub-divided the claims of old group I into three new groups, Group I to III, reasoning that there is no common special technical feature (PCT Rule 13.2) defining the contribution over the art linking these groups of inventions. Applicants disagree with the Office on this point. The common special technical feature linking the inventions of new group I to III is that each read on a polypeptide possessing endo-xylogalacturonase activity. Such a

peptide comprises an enzyme capable of cleaving galacturonic acid polymer at least partially substituted with xylose at internal glycosidic bonds. Such an enzyme is very useful in food processing of pectin containing food as it improves pectin degradation.

None of the documents cited by the Office describes nor suggests such an enzyme possessing endo-xylogalacturonase activity. Document WO95/34233 relates to a method of producing fruit juices with increased cloud stability using a combination of enzymes that attack the hairy region of pectin. The enzymes in this reference hydrolyze the bound between rhamnose and galacturonic acid. (Page 3, lines 7-18.) This document however, does not mention nor suggests enzymes with endo-xylogalacturonase activity.

Chen et al. describe purification and analysis of β -1,3-xylalanses from *Aspergillus terreus*. The paper reports 6 different endo-type β -1,3-xylalanses that hydrolyse β -1,3-xylan to xylose and xylooligosaccharide. Note however that xylan (a polymer made of xylose units) is different from xylogalacturonan (*i.e.*, a galacturonan backbone heavily substituted with xylose). Therefore, Chen et al. do not disclose nor suggest enzymes with endo-xylogalacturonase activity.

Renard et al. report the analysis of a pectin fraction rich in terminal xylose and fucose, which could be partially degraded by an endo-galacturonase, but not by an endo-xylanase. This document neither describes nor suggests the presence of an endo-xylogalacturonase. Please note that endo-galacturonases are enzymes that degrading the smooth region of pectin, while endo-xylogalacturonase degrade xylogalacturonan, a subunit found in the hairy region of pectin.

In view of these deficiencies, it is clear that the art cited by the Office fails to deprive the claims of old Group I of the special technical features which united the group. Therefore, the present requirement for restriction should be with drawn and the claims for old group I should be examined.

Typographical Errors in New Groups

Applicants respectfully submit that the new restriction groups proffered by the Office contain errors. For example, new Group I is listed as encompassing claims 1-6, 20-21, 27 and 34 and Group II encompasses 7-19, 20-21 and 34, while Group III encompasses claims 22-37, 30-33, 39 and 42-44. The typographical error in Group III is readily apparent. Applicants further submit

that inclusion of claim 27 with the other claims of new Group I appears to be an error. This claim appears to belong in Group III. Also, inclusion of claims 20-21 and 34 in Group II makes little sense, since Group II is drawn to polynucleotides while the subject matter of claims 20-21 and 34 is directed to polypeptides.

Applicants hereby provisionally elect Group I (claims 1-6, 20-21, (27) and 34), with traverse. Applicants expressly reserve their right under 35 U.S.C. § 121 to file a divisional application directed to the nonelected subject matter during the pendency of this application, or an application claiming priority from this application.

Should the Examiner uphold the restriction requirement and the product claim is subsequently found allowable, Applicants reserve the right to request rejoinder of withdrawn process claims which include all the limitations of the allowable product claim for examination (M.P.E.P. §821.04).

CONCLUSION

Applicants request reconsideration of the restriction requirement and examination of the elected subject matter on the merits.

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing **251502008400**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: October 6, 2005

Respectfully submitted,

By 

James J. Mullen III, Ph.D.

Registration No.: 44,957

MORRISON & FOERSTER LLP

3811 Valley Centre Drive

Suite 500

San Diego, California 92130-2332

(858) 720-7940